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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/644,556

08/19/2003

Man K. Kwong

Kwong 3-3

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10/26/2006

Carl A. Giordano, Esq.  
Duane Morris LLP  
380 Lexington Avenue  
New York, NY 10168

EXAMINER

WEI, ZHENG

ART UNIT

PAPER NUMBER

2192

DATE MAILED: 10/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/644,556

Applicant(s)

KWONG ET AL.

Examiner

Zheng Wei

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This office action is in response to the application filed on 08/19/2003
2. Claims 1-20 are pending and have been examined.

### *Priority*

3. The priority date for this application is 08/19/2003. No continuing data and foreign applications are related to this application.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

#### Claims 3 and 12:

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this

can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims.

Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 3 and 12 recite the broad recitation "variable", and the claims also recite "scalar, constant, array and hash variables" which are the narrower statement of the range/limitation. For the purpose of compact prosecution, the examiner has treated the selected group of claims 3 and 12 consisting of: variable, vector and function.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-7, 9-18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Shagam (Eli Shagam, US 6,161,216)

Claim 1:

Shagam discloses a method for monitoring at least one quantity in a Perl-  
software package containing a plurality of quantities (see for example, col.4, lines  
4-6, "C-like language (e.g., Perl)") comprising the steps of:

- selecting at least one of said quantities (see for example, col.1, lines 49-50, "function argument or a variable to be collected by the source code debugger");
- identifying each reference to said selected at least one quantity (see for example, Fig.4A and related text, "variable: referenced or modified");
- including an operation to record said selected quantity at selected ones of said references to said quantity (see for example, Fig.4B, section 45 and related text, "actions", "collect \$args"); and
- creating a second software package from said first software package containing said included operations (see for example, Fig.1, element 22 and related text, "debugging script").

Claim 2:

Shagam further discloses the method as recited in claim 1, wherein the step of  
selecting at least one of said quantities further comprises:

- viewing said plurality of quantities (see for example, Fig.4A, section 34 and related text, col.4, lines 54-55, "The 'verbose' option (-v) causes script generator 20 to automatically list a number of instruction statements...");  
and

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- selecting at least one of said quantities (see for example, Fig.4A, section 34 and related text, also see col.4, lines 60-63, "The 'args' (-args) and 'locals' (-locals) option instruct script generator to collect function arguments and local variables...").

Claim 3:

Shagam also discloses the method as recited in claim 1, wherein said quantities are selected from the group consisting of: scalar, constant, variable, vector, array, hash and function (see for example, col.4, lines 8-9, "If the criteria are met, script generator collects information (e.g., function arguments or variables)").

Claim 4:

Shagam further discloses the method as recited in claim 1, wherein said operation further comprises the steps of:

- receiving said selected at least one quantity (see for example, col.3, lines 53-54, "a debugging script 22 that specifies where a trace point is to be inserted..."); and
- recording said at least one quantity when said quantity is referenced (see for example, col.3, lines 54-55, "...the particular information to be collected").

Claim 5:

Shagam also discloses the method as recited in claim 1, wherein said selected references are identified from the group consisting of: line ranges, variables, and reference condition (see for example, col.5, lines 38-40, "...either the name of the routine or line number of the routine or the line number where the trace point should be placed...").

Claim 6:

Shagam further discloses the method as recited in claim 4, wherein the step of storing further comprises the step of: recording said quantity when said quantity is altered (see for example, col.4, lines 64-66, "The 'all' option (-all) causes script generator 20 to automatically collect all local variables (\$local) after every assignment statement").

Claim 7:

Shagam also discloses the method as recited in claim 1, further comprising the step of: printing the recorded references of said quantities (see for example, col.5, lines 11-13, "If the results are not required to be stored, no filename is entered and script generator 20 will simply display the results.").

Claim 9:

Shagam also discloses the method as recited in claim 1, wherein said operation is selected from the group consisting of: eval \_d, \_k, and \_t. (see for example, fig.4B, section 40, "actions", "collect \$args" and related text)

Claims 10-16 and 20:

Claims 10-16 and 20 are system claims for performing the methods as in claims 1-7 and 9 above (see for example, fig.2, a block diagram illustrating a computer system for software debugging). Therefore, they are also rejected as the same reason as being anticipated by Shagam.

Claim 17:

Shagam discloses the system as recited in claim 10, wherein said code is stored in said memory (see for example, col.4, lines 1-2, "script generator 20 and debugging script can be stored in any one of working storage 3(RAM), program storage or non-volatile data storage 5.")

Claim 18:

Shagam also discloses the system as recited in claim 10, further comprising: a device for receiving information from and transmitting information to said processor. (see for example, fig.2, elements 3-5 and related text, also see col.3, line 61 – col.4, line 3, "processor", "RAM")



***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 8, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shagam (Eli Shagam, US 6,161,216) in view of Blasciak (Blasciak et al., US 5,265,254)

Claims 8 and 19:

Shagam discloses the method and system as recited in claim 1 and claim 10 above, wherein said operation is operable to collect information for the variables, but does not explicitly disclose said operation is operable to determine a time difference between selected quantities. However, Blasciak in the same analogous art of system for debugging software discloses a method of capturing time stamp markers to calculate the relative and absolute amounts of processing time spent in each of the functional codes. (see for example, fig.2, element 224 and related text, also see col.3, lines 4-6). Therefore, it would have been obvious to one having ordinary skill in the art at time the invention was made to use time stamp to determine a time difference between selected quantities. One would have been motivated to combine time stamp method with Shagam's method to generate more useful and simpler debugging information as once suggested by

Blasciak (see for example, col.6, lines 34-37, "for purposes of verifying time-based specifications and design margins of the software as well as performing simple, trustworthy, performance measurements")

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
  - Lenoardus Grassens (US 2005/0015751 A1) discloses an automated program debugging tool.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zheng Wei whose telephone number is (571) 270-1059. The examiner can normally be reached on Monday-Thursday 8:00-15:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571- 272-1000.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ZW



TUAN DAM  
SUPERVISORY PATENT EXAMINER